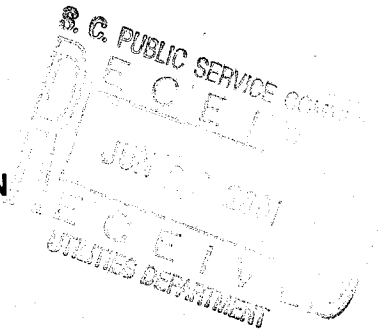


**STATE OF SOUTH CAROLINA
BEFORE THE PUBLIC SERVICE COMMISSION**



IN THE MATTER OF:

**Application of Carolina Water Service, Inc.
for an Increase in its Rates and Charges
for Water and Sewer Service**

DOCKET NO. 2000-0207-W/S

DIRECT TESTIMONY OF

MICHAEL A. BLEIWEIS

ON BEHALF OF

THE CONSUMER ADVOCATE OF SOUTH CAROLINA

JUNE 2001

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Appendix A

SCHEDULES

1 I. **STATEMENT OF QUALIFICATIONS**

2 Q. **Please state your name and business address.**

3 A. My name is Michael A. Bleiweis and my business address is 243 Banks
4 Road, Easton, Connecticut.

5 Q. **By whom are you employed?**

6 A. I am employed by The Woodside Group, Inc., a financial and management
7 consulting firm.

8 Q. **What position do you hold with The Woodside Group and in what
9 endeavor do you specialize?**

10 A. I am a principal specializing in testifying on various financial and
11 accounting issues, especially revenue requirement determination, in public
12 utility rate cases. Over the course of my career, my services have been
13 utilized by various consumer advocate and public interest groups and by
14 public utilities.

15 Q. **For whom are you testifying in this proceeding?**

16 A. I am testifying on behalf of the Consumer Advocate.

1 **Q. What is your educational background?**

2 A. I am a graduate of Syracuse University with a Bachelor of Arts degree in
3 Political Science and of New York University Graduate School of Business
4 Administration with a Masters of Business Administration degree in
5 Financial Analysis and Securities Analysis.

6 **Q. What has been your business experience?**

7 A. In 1973, I was employed as an economic research consultant with the firm
8 of National Economic Research Associates (NERA) where I was involved
9 in the preparation of rate of return exhibits that were based upon computer
10 modeling for various utility companies.

11 In 1974, I joined the firm of Citizens Utilities Company as a Revenue
12 Requirements Analyst. My duties included the preparation of financial
13 exhibits and testimony for various electric, water, gas and sewer company
14 rate cases.

15 In 1977, I joined American Water Works Service Company as Director of
16 Rates and Revenue of the Eastern and New England Divisions of
17 American Water Works Company, Inc. I was charged with the
18 responsibility of preparing financial exhibits, supporting data and testimony
19 for use in rate hearings for a total of thirteen water companies in New
20 England, New York and New Jersey.

21 I have been employed at The Woodside Group since 1979.

- 1 **Q. Please describe further your experience in regulatory matters.**
- 2 A. Attached as Appendix A is a listing of the proceedings in which I have
- 3 testified or participated concerning the proper determination of revenue
- 4 requirements and other rate-related topics.

1 **II. SUMMARY OF METHODOLOGY**

2 **Q. Mr. Bleiweis, will you please summarize the source material you**
3 **utilized in preparing this testimony and the accompanying**
4 **schedules?**

5 **A. My testimony and schedules are primarily based upon company replies to**
6 **the Consumer Advocate's interrogatories, replies to Staff data requests**
7 **and the company's application. At the time of the writing of this testimony,**
8 **there are still some issues which remain unresolved or need to be**
9 **clarified. Therefore, I reserve the right to modify this testimony and**
10 **accompanying schedules as deemed necessary.**

11 **Q. What methodology have you utilized in determining the revenue**
12 **requirement for the company?**

13 **A. I have utilized the rate base/rate of return methodology. Unlike many**
14 **water and wastewater utilities located in South Carolina whose plant was**
15 **contributed by developers, thereby resulting in small or even negative rate**
16 **bases, Carolina Water Service's rate base is significant enough to**
17 **determine a proper revenue requirement by using the rate base/rate of**
18 **return methodology.**

19 **Therefore, as shown on Schedule MAB-1, based upon my adjustments to**
20 **income and rate base and Dr. Legler's recommended rate of return, I have**
21 **determined the company's revenue requirement to be \$324,547. This is a**
22 **reduction of \$360,516 from the company's requested revenue requirement**
23 **of \$685,063.**

1 **III. ISSUES**

2 **A. Rate Case Expense**

3 **Q. Please describe the company's rate case expense claim.**

4 **A.** As shown below and on Schedule MAB-6, the company is claiming total
5 rate case expense of \$188,200 to be amortized over a three-year period.

	Company (1)	Adj. (2)	C.A. (3)
Legal Fees	\$100,000		
Travel	2,600		
Water Service Personnel	65,600		
Subtotal	168,200	(\$68,200)	\$100,000
Cost of Capital	20,000	-	20,000
Expense to Be Amortized	\$188,200	(\$68,200)	\$120,000
Amortization Period (Years)	3	2	5
Amortization Expense	\$62,733	(\$38,733)	\$24,000

6

7 The total expense includes \$100,000 for legal fees; \$2,600 for travel
8 expense; \$65,000 for the cost of Water Service Corporation (WSC)
9 personnel, and; \$20,000 for the cost of capital witness.

10

11 **Q. How does the total expense claimed for this proceeding of \$188,200**
12 **compare with the actual rate case expense incurred in the**
13 **company's last proceeding?**

1 A. In her Rebuttal Testimony in Docket No. 93-738-W/S, the company's
2 witness, Patricia Cuddie, stated at page 5 that:

3 "The Company has incurred rate case expense for this proceeding
4 in the amount of \$93,161."

5 This total included \$39,500 for legal expense and \$32,466 for WSC
6 personnel. Thus, excluding the expense for the cost of capital witness
7 (there was no cost of capital witness in the last proceeding), the
8 company's claimed rate case expense in this proceeding is approximately
9 \$75,000 or 80% higher than the actual cost of the last proceeding. The
10 charges for legal fees and WSC personnel have both increased over
11 100%.

12 **Q. Besides the more than 100% increase in legal expense, what other**
13 **information should the Commission consider in adjudicating the**
14 **company's claim?**

15 A. The reply to CA Interrogatory No. 1-20 shows that the \$65,600 cost for
16 WSC Personnel was calculated by applying 400 hours at \$164/hour for
17 "CJW", which I assume to be Mr. Wenz, the Vice President of Regulatory
18 Matters. I find this claim to be suspect in several regards. First, as Vice
19 President, it is difficult to comprehend that Mr. Wenz, himself, is solely
20 responsible for preparation of all aspects of this rate case, as his claim
21 would have us believe. Having been the director of a revenue
22 requirements department, myself, I know that it is common practice for the

1 director to oversee rate case preparation but to do very little of the actual
2 day-to-day preparation himself. It is extremely doubtful that Mr. Wenz,
3 and only Mr. Wenz, prepared every aspect of the company's filing.

4 Second, the company's claim of 400 hours equates to 50 man-days, an
5 exorbitant amount considering the barebones filing and Mr. Wenz' 11
6 pages of Direct Testimony. If the company believes that 400 hours is a
7 realistic number, then it should provide detailed timesheets in support of
8 this claim.

9 Third, it is equally exorbitant for rates to be based upon WSC personnel
10 charges of \$164/hr. Hopefully, the personnel who actually prepared the
11 filing charged Carolina Water Service ratepayers at a lesser rate.

12 **Q. What amount of rate case expense do you recommend be utilized for**
13 **this proceeding?**

14 A. Considering the company's exorbitant claims detailed above, I
15 recommend that the Commission allow total rate case expense of no more
16 than \$120,000. This includes \$100,000 for legal fees, travel and WSC
17 personnel and \$20,000 for the cost of capital witness. The company has
18 presented no credible support for allowing rate case expense (exclusive of
19 the cost of capital witness) above the actual cost of the last proceeding.

20 **Q. Do you agree that claimed rate case expense should be amortized**
21 **over a three-year period?**

1 A. No. Use of a three-year period is not a standard that should be followed
2 blindly. Rather, it is common regulatory practice for the rate case
3 amortization period to reflect the length of time between rate cases. It has
4 been over seven years since the May 31, 1994 effective date of the
5 company's last base rate proceeding (Docket No. 93-738-W/S). The
6 company fully recovered its rate case expense after three years, but has
7 continued to include that expense in its rates for an additional four years.
8 It is only conjecture as to when the next base rate proceeding will occur.
9 Therefore, I recommend that a five-year amortization period be utilized for
10 ratemaking purposes. This period is reasonable based upon the actual
11 length of time between the last and current base rate proceedings.

12 **Q. What is the result of your recommendations?**

13 A. As shown above and on Schedule MAB-6, use of \$120,000 total rate case
14 expense and a five-year amortization period results in amortization
15 expense of \$24,000, a \$38,733 downward adjustment from the company's
16 claim of \$62,733.

1 **B. Utility Commission Expense**

2 **Q. What adjustment is the company proposing to make to the**
3 **Utility/Commission Tax?**

4 A. The company is proposing to increase the tax by an estimated five
5 percent, or \$2,850. It is a widely followed regulatory principle that rates
6 should be based on "known and measurable" data. Ratepayers should
7 only have to pay for expense levels that are known to exist in order to
8 avoid possible windfalls to the utility. Even though this adjustment is
9 relatively small, in my opinion it is important for the Commission to
10 recognize that just and reasonable rates should only be based upon data
11 that can be supported by fact.

12 **Q. What do you recommend?**

13 A. Since the company has not provided any basis for its estimate, the
14 adjustment is not known and measurable, and should be rejected for
15 ratemaking purposes. As shown on Schedule MAB-8, this results in a
16 \$2,850 downward adjustment to expense.

1 **C. Deferred Expenses**

2 **Q. Does the test year ended December 31, 2000 include charges for**
 3 **deferred expenses?**

4 **A. Yes. As shown below and on Schedule MAB-9, the test year includes**

	Company (1)	Adj. (2)	C.A. (3)	Date
<u>Deferred Rate Case Expense</u>				
Defd Rate Case Exp Amort	\$1,596	(\$1,596)	\$0	1/1/98
Defd Rate Case Exp Amort	1,188	(1,188)	0	1/1/98
Defd Rate Case Exp Amort	58,806	(58,806)	0	1/1/98
Subtotal	61,590	(61,590)	0	
<u>Deferred Maintenance Expense</u>				
Tank Maint (Wtr)	502	(502)	0	11/1/99
Tank Maint (Wtr)	3,314	(3,314)	0	1/1/96
Attorney Fee-Lake Murray Bulk Wtr	420	(420)	0	9/1/97
Taxes SE2	6,164	(6,164)	0	8/1/90
I&I Study	1,740	(1,740)	0	6/3/99
PR Wash/Jet SWR Mains	2,292	(2,292)	0	1/1/97
TV SWR Mains	444	(444)	0	3/1/97
Tank Maint (SWR)	240	(240)	0	4/1/98
Subtotal	15,116	(15,116)	0	
Total Deferred Expenses	\$76,706	(\$76,706)	\$0	

5
 6 \$76,706 for deferred expenses for both rate case expenses and
 7 maintenance expenses.

8 **Q. Please define the term "deferred charge."**

9 **A. For purposes of this ratemaking proceeding, a deferred charge can be**
 10 **defined as an expenditure that occurred in a time period prior to the test**

1 year, the amortization for which, is being claimed as a component of pro
2 forma test year expense and is, therefore, a basis for determining rates.

3 **Q. Did any of the claimed expenditures occur during the test year?**

4 A. No. As shown above, some of the expenditures actually occurred as
5 much as 11 years ago but none were made during the test year. In fact,
6 all but one of the expenditures was incurred after the last rate proceeding.
7 It is not clear what 1998 "rate case" expenditures are being deferred since
8 this is the first base rate proceeding since 1994.

9 **Q. If none of these expenditures occurred during the test year and the**
10 **company is including the amortization in test year expense, then**
11 **isn't the test year expense inflated above what it would have been if**
12 **the amortizations were not included?**

13 A. Yes. Including these amortizations in test year expense is a back-handed
14 way for the company to have ratepayers pay for expenditures which did
15 not occur during the test year. By using this methodology, of course, the
16 company does not have to absorb these pre-test year expenditures itself.

17 **Q. Did the company request the Commission to allow deferral**
18 **accounting for these expenditures?**

19 A. No. As I stated in my Direct Testimony in Docket No. 93-738-W/S:

20 "The Company should have come to the Commission and requested that
21 these expenditures be deferred on their books and, then, the Commission

1 could decide whether the company should be given the opportunity, not
2 the right, to request that such expenditures be reflected in a later rate
3 case. If such requests were made, then the parties should have been
4 given the opportunity to question the company about the propriety of the
5 expenditures."

6 **Q. Should the Commission allow the amortization of deferred**
7 **expenditures in test year expense?**

8 A. No. Ratemaking regulation does not guarantee that utilities will be
9 reimbursed for every expenditure no matter when that expenditure is
10 made. For rates to be just and reasonable, rates must be based on a test
11 year that is representative of future periods. It is not equitable for the
12 company to artificially inflate test year expense by bringing forward
13 unapproved expenditures from a prior period.

14 As shown above and on Schedule MAB-9, the result of excluding deferred
15 charges is to reduce test year expenses by \$76,706.

1 **D. Test Year Expense Variance**

2 **Q. Has the company made any downward adjustments to actual**
3 **Operation and Maintenance (O&M) test year expense to reflect**
4 **abnormal expenditures?**

5 **A.** No, the company has only made upward adjustments to test year
6 expense. By definition, by making no adjustments, the company
7 considers all test year expenditures to be representative of future period
8 expenditures.

9 **Q. Do you agree that all test year O&M expenses should be allowed for**
10 **ratemaking purposes?**

11 **A.** No. I have compared booked test year expenses, as detailed in the
12 annual reports to the PSC on an account-by-account basis, to those from
13 prior years. Account 720.6- Transmission and Distribution Materials and
14 Supplies for sewer has increased as follows:

15 1998: \$611,328

16 1999: \$730,640

17 2000: \$767,762

18 Thus, test year expense is over \$156,000 or 26% greater than the
19 expense from only two years before. This large variation in expense is
20 just the type of expense that should be adjusted for ratemaking purposes.

1 **Q. What do you recommend?**

2 A. I recommend that this large variation in expense be adjusted for
3 ratemaking purposes by taking a three-year average of actual expenses.
4 In this way the Commission and the ratepayer can be assured that the
5 expense allowed for ratemaking purposes is representative of similar
6 expenses to be incurred in the future.

7 As shown on Schedule MAB-10, use of a three-year average results in a
8 \$64,519 downward adjustment to expense.

1 **E. Pro Forma Plant and CWIP**

2 **Q. Please explain the company's rate base claims for pro forma plant**
3 **and Construction Work in Progress (CWIP).**

4 **A. Unfortunately, the basis for the company's claims is not clear. In his**
5 **Direct Testimony, all Mr. Wenz states at page 7 is:**

6 "The other rate base adjustment indicated on Schedule D is to reflect
7 capital projects that were underway but not yet complete as of the end of
8 the test year."

9 However, the reply to CA Interrogatory No. 1-32 does not corroborate this
10 statement. This reply shows that only three of the thirteen projects
11 claimed as Pro Forma Plant were underway as of the end of the test year.
12 No start date was given for the other ten projects. Further, of the five
13 projects claimed for CWIP, only one shows a completion date before the
14 end of October 2001, a full ten months after the end of the test year.

15 Further, as explained in the notes on Schedule MAB-13, the company has
16 made two errors in its calculation of its claims. First, though the company
17 is claiming \$187,000 for water pro forma plant, the projects shown on the
18 response to CA Interrogatory No. 1-32 only add up to \$182,000, a
19 difference of \$5,000. Second, the balances for the project entitled
20 "Upgrade L/S #3" are contained in both the claims for CWIP and Pro
21 Forma Plant.

1 **Q. What do you recommend?**

2 A. For Pro Forma Plant, I recommend that only those projects that have
3 begun and that are expected to be completed shortly be recognized for
4 ratemaking purposes. Similarly, regarding CWIP, I recommend that only
5 the one project that is expected to be completed shortly be recognized for
6 ratemaking purposes. The company's other claims are unsubstantiated in
7 that they have not yet been started or will be completed long after the end
8 of the test year which the company has chosen for this proceeding. The
9 burden of proof to substantiate such claims is on the company, not on the
10 Staff, the Consumer Advocate or other parties. I submit that the company
11 has not even come close to meeting their burden of proof that these
12 claims should be the basis of rates determined by this proceeding.

13 Therefore, as shown on Schedules MAB-13 and MAB-14 respectively, the
14 claimed Pro Forma Plant balance should be reduced by \$288,950 and the
15 claimed CWIP balance should be reduced by \$182,910.

1 **F. Net Plant in Service**

2 **Q. Should adjustments be made to the company's claimed rate base**
3 **balance for Net Plant in Service?**

4 A. Yes. CA Interrogatory No. 1-42 requested the company to identify "any
5 and all of [its] systems that have converted from water supplied by
6 Company-operated wells to bulk service from another supplier." CA
7 Interrogatory No. 1-44 requested similar information for sewer service.

8 In its responses, the company stated that interconnections had been
9 made between the River Hills water and sewer systems and the I-20 and
10 Watergate water systems with publicly owned facilities. Because of these
11 interconnections, some of the company's wells will no longer be providing
12 service to ratepayers.

13 The company states that "the only plant items no longer used and useful
14 from these systems are the wells in the I-20 and Watergate systems" and
15 that the River Hills wells are being retained in a back-up emergency
16 status."

17 **Q. What do you recommend?**

18 A. It is clear from the company's reply that the above-identified plant is no
19 longer "used and useful" in providing service to customers. It is a
20 regulatory principle that only plant that is used and useful should be
21 included in rate base. As shown on Schedule MAB-15, the company has

1 identified the net book value of the I-20 and Watergate wells to be
2 \$171,333 and the net book value of the River Hills wells to be \$116,786.
3 Both balances should be excluded from rate base for ratemaking
4 purposes.

5 Also, Counsel informs me that a bulk water service agreement has been
6 approved for the Idlewood subdivision in Docket No. 2001-195-W, and
7 that the company has filed an application with the Commission requesting
8 approval of bulk water service for the Westside Terrace subdivision. The
9 company should identify the net book value for the wells from these
10 subdivisions that will be taken out of service and these amounts should
11 also be removed from rate base.

1 **G. Revenue Annualization/Customer Growth Adjustment**

2 **Q. Has the company included an adjustment to either annualize**
3 **revenues or reflect customer growth?**

4 **A.** Unlike its last proceeding where the company presented a customer
5 growth adjustment, in this proceeding the company has neither annualized
6 revenues nor adjusted net income for customer growth.

7 **Q. Why is a revenue adjustment necessary?**

8 **A.** In this proceeding, the company has presented adjustments to annualize
9 expenses for salaries, wages and benefits, depreciation and taxes other
10 than income taxes as of the end of the test year. Since expenses have
11 been annualized as of the end of the test year, it would be a regulatory
12 and financial mismatch not to annualize revenues at the same point in
13 time. By not annualizing, the company has reflected revenues based
14 upon the average number, rather than the year-end number of test year
15 customers. It is unfair to customers to determine rates by not accounting
16 for growth in the number of customers during the test year.

17 **Q. How is a revenue annualization adjustment determined?**

18 **A.** For water, the normal method would be to multiply the year-end number of
19 customers by average consumption and then use the tariffs to price out
20 the service and consumption charges. For sewer, the normal method

1 would be to multiply the number of year-end customers by the applicable
2 tariff charges.

3 **Q. Have you been able to determine a revenue annualization**
4 **adjustment?**

5 A. No. Similar to the information requested and provided in past rate
6 proceedings for the company, I requested the company to provide
7 consumption analyses for both water and sewer utilizing year-end
8 numbers of customers (CA Interrogatory Nos. 1-10 and 1-12) but the
9 company refused to do so. After negotiations between counsels, the
10 company agreed to provide computer printouts from which the necessary
11 information was supposedly able to be obtained. However, it was
12 impossible for me to tie the information on the computer printouts to the
13 usage data contained in the filing. This difficulty is the reason why I
14 requested the company to make the calculations, since their personnel are
15 much more familiar with the detail necessary to perform such an
16 adjustment.

17 **Q. What do you recommend?**

18 A. I recommend that the Commission order the company to supply the
19 annualized number of billed units by bill code for both water and sewer
20 similar to the data shown on Schedule D of the filing. A calculation to
21 determine annualized revenues can then be made.

1 **Q. For purposes of this testimony, have you prepared a short-cut**
2 **method that reflects customer growth?**

3 **A. Yes. On Schedule MAB-5, I have calculated a customer growth**
4 **adjustment by applying the increase in the number of customers from**
5 **12/31/99 to 12/31/00 by average revenue per customer. The result is a**
6 **upward adjustment to revenue of \$40,196 and a upward adjustment to**
7 **income of \$39,839 after applying revenue-related expenses. Again,**
8 **though I am presenting this adjustment, I would prefer that a revenue**
9 **annualization adjustment be calculated instead.**

1 **H. Cash Working Capital**

2 **Q. Has the company calculated a cash working capital balance to be**
3 **included in rate base?**

4 A. Yes. Cash working capital has been calculated by applying a percentage
5 of 12.5%, representing an average expense lag time, to the total of O&M
6 expense and taxes other than income taxes.

7 **Q. Do you agree with this methodology?**

8 A. I agree with applying a 12.5% factor against O&M expense, but not with
9 applying the factor to taxes other than income taxes.

10 **Q. Why is it improper to apply the factor to taxes other than income**
11 **taxes?**

12 A. In rate proceedings, two major methodologies are used to determine cash
13 working capital. The preferred method is a lead/lag study, but this can be
14 an expensive and time-consuming proposition for a small utility. The
15 alternative methodology is to apply the 12.5% factor (45 days divided by
16 360 days) to operation and maintenance expenses. I have never seen the
17 12.5% factor applied to taxes other than income taxes in a rate
18 proceeding, because this factor is supposed to represent the lag for O&M
19 expenses only.

1 **Q. What do you recommend?**

2 A. As shown on Schedule MAB-16, I recommend that the 12.5% factor be
3 applied only to test year adjusted O&M expense. The result is a \$98,288
4 downward adjustment to rate base.

5 **Q. Does this conclude your Direct Testimony?**

6 A. Yes, subject to the reservations contained above.

7

Appendix A

MICHAEL A. BLEIWEIS

CONSULTING EXPERIENCE

1 IDAHO

2 Idaho Electric Company) Docket Nos.: 100726)
3) 100727)
4 Idaho Water Company) 100728)

5 INDIANA

6 Flowing Wells Water Company.....Docket No. 34739

7 MASSACHUSETTS

8 Hingham Water CompanyDocket No. 19744

9 American Water Company.....Docket No. 19900

10 NEW JERSEY

11 Commonwealth Water Company.....Docket Nos.: 784-274
12 819-781
13 842-100
14 WR8503245

15 Elizabethtown Water Company Docket Nos.: 802-76
16 818-735
17 WR8504330

18 Mt. Holly Water Company.....Docket Nos.: 805-314
19 819-801

20	Monmouth Consolidated Water Company.....	Docket Nos.: 819-816
21		828-723
22		831-1113
23		850-3267

24 Public Service Electric and Gas Co.....Docket No. 812-76

Appendix A

MICHAEL A. BLEIWEIS

CONSULTING EXPERIENCE

1 NEW JERSEY

2 Atlantic City Electric Company.....Docket Nos.: 7911-9511
3 839-753(LEAC)
4 8410-1079(LEAC)
5 ER8504434
6 8609980-4981
7 8709-1159&1160
8 8809-1053
9 ER90091090J
10 ER92020253J

11 Jersey Central Power and Light Co.....Docket Nos.: 811-25
12 831-110
13 8507698
14 8601121(LEAC)
15 ER87111295(LEAC)
16 ER91121820J

17 Rockland Electric Company.....Docket No. 827-612

18 Middlesex Water Company.....Docket Nos.: 829-707
19 845-402

20 New Jersey Natural Gas CompanyDocket Nos.: 831-46
21 838-687 (LPGA)

22 Hackensack Water CompanyDocket Nos.: 837-622
23 847-698

24 Elizabethtown Gas CompanyDocket Nos.: GR86121374
25 GR88080913(LPGA)
26 GR8812-1321
27 GR8801-0217

28 Toms River Water CompanyDocket No. WR92010081

29

30 OHIO

31 American Utilities Co. (Water) Docket No.80-999-AIR

MICHAEL A. BLEIWEIS
CONSULTING EXPERIENCE

1	<u>PENNSYLVANIA</u>	
2	Philadelphia Electric Co. (Elec. and Gas).....	Docket Nos.: R-80061225
3		R-811626
4		R-811719
5		R-822291
6		R-832410
7		R-842590
8		R-850152
9		R-860346-1307(f)
10		R-880955-1307(f)
11		R-891290-1307(f)
12		R-911976-1307(f)
13	Equitable Gas Company.....	Docket No. R-80041169
14	Duquesne Light Company	Docket Nos.: R-811470
15		R-832337
16		M-00930404C001
17	West Penn Power Company.....	Docket Nos.: R-811836
18		R-901609
19	The Peoples Natural Gas Co.....	Docket No. R-821906
20	Pennsylvania Gas & Water Co. (Gas and Water)	Docket Nos.: R-821961
21		R-822102
22		R-891261
23	Metropolitan Edison Company.....	Docket No. R-842770
24	Pennsylvania Electric Co.....	Docket No. R-842771
25	Philadelphia Water Department.....	1985 Rate Increase
26		1990 Rate Increase
27		1992 Rate Increase

MICHAEL A. BLEIWEIS
CONSULTING EXPERIENCE

1	<u>PENNSYLVANIA</u>	
2	Philadelphia Gas Works	1986 Rate Increase
3		1988 Rate Increase
4		1990 Rate Increase
5		1991 Rate Increase
6		2001 Rate Increase
7		1993-94 Operating Budget
8		1994-95 Operating Budget
9		1995-96 Operating Budget
10		1996-97 Operating Budget
11		1997-98 Operating Budget
12		1998-99 Operating Budget
13		1999-00 Operating Budget
14		2000-01 Operating Budget
15		
16	UGI Corporation	Docket No. R-860344-1307(f)
17		R-00932862
18	Columbia Gas of Pennsylvania	Docket Nos.: R-860527
19		R-87058
20		R-901873
21		R-911921-1307(f)
22		R-932597-1307(f)
23	Western Pennsylvania Water Co.-	
24	Butler District	Docket No. R-832381
25	Pennsylvania-American Water Co.....	Docket No. R-880916
26	T.W. Phillips Gas and Oil Co.	Docket Nos.: R-88194
27		R-891566
28	Philadelphia Suburban Water Co.	Docket No. R-891270
29	Newtown Artesian Water Co.	Docket No. R-911977
30	Indian Rock Water Company.....	Docket No. R-911971
31	Apollo Gas Company.....	Docket No. R-092254
32	Shenango Valley Water Company.....	Docket No. R-00922420

MICHAEL A. BLEIWEIS

CONSULTING EXPERIENCE

1 **PENNSYLVANIA**

2 Pennsylvania Power & Light Company..... Docket No. M-00930406C0001

3 Borough of Media Water Works..... Docket No. R-00943098

4 PFG Gas, Inc./North Penn Gas, Inc. Docket No. R-00953524

5 **RHODE ISLAND**

6 Bristol County Water Company Docket No. 1787

7 **NEW MEXICO**

8 Gas Company of New Mexico Case No. 1916

9 Public Service Co. of New Mexico..... Case No. 1916

10 **DELAWARE**

11 Delmarva Power & Light Co. Docket Nos.: 86-24
12 91-20
13 92-85

14 Artesian Water Company..... Docket Nos.: 90-10
15 92-5

16 Wilmington Suburban Water Co. Docket No. 91-1

17 Delaware Electric Cooperative Docket No. 91-37

18 **SOUTH CAROLINA**

19 South Carolina Pipeline Corp. Docket No. 88-652-G

20 South Carolina Electric and Gas Co. Docket Nos.: 88-695-G
21 92-009-G

22 Peoples Natural Gas Co. of SC Docket No. 89-12-G

MICHAEL A. BLEIWEIS

CONSULTING EXPERIENCE

1 **SOUTH CAROLINA**

2 Carolina Water Service..... Docket No. 93-738-W/S

3 Tega Cay Water Service Docket No. 96-137-W/S

4 Palmetto Utilities Docket No. 98-653-S

5 Harbor Island Utilities Docket No. 97-262-W/S

6 Sigfield Water Company Docket No. 97-131-W

7

8

9 **MAINE**

10 Central Maine Power Co.Docket No. 92-345

11 Mr. Bleiweis has also supervised or participated in the preparation of rate cases

12 for companies in the states of Arizona, California and New York.

13

Schedule MAB-1

**Carolina Water Service, Inc.
Revenue Requirement
Test Year Ended December 31, 2000**

	Company (1)	Adj. (2)	C.A. (3)	Schedule MAB-
Rate Base	\$12,580,696	(\$858,267)	\$11,722,429	2
Rate of Return			9.56%	3
U.O.I.-Proposed Rates	\$1,215,418	(\$94,754)	\$1,120,664	
U.O.I.-Present Rates	\$789,692	\$129,285	\$918,977	4
Income Deficiency	\$425,726	(\$224,039)	\$201,687	
Conversion Factor	1.609160		1.609160	see below
Revenue Requirement	\$685,063	(\$360,516)	\$324,547	
			<u>1</u>	
Uncollectible Factor			0.005864	
Gross Receipts Tax			0.003	
Uncoll + GRT			<u>0.008864</u>	
Net			0.991136	
State Income Tax Rate			0.05	
State Income Tax			<u>0.049557</u>	
Net			0.941579	
FIT Rate			0.34	
FIT			<u>0.320137</u>	
Net			0.621442	
Factor			<u>1.609160</u>	

Schedule MAB-2

Carolina Water Service, Inc.
Rate Base
Test Year Ended December 31, 2000

	Company (1)	Adj. (2)	C.A. (3)	Schedule MAB-
Gross Plant in Service	\$31,616,926	\$0	\$31,616,926	
Accumulated Depreciation	(3,746,648)	0	(3,746,648)	
Net Plant in Service	27,870,278	(288,119)	27,582,159	15
Cash Working Capital	456,647	(98,288)	358,359	16
Contributions in Aid	(13,538,305)	0	(13,538,305)	
Accum Def Income Taxes	(1,224,199)	0	(1,224,199)	
Customer Deposits	(159,022)	0	(159,022)	
Plant Acquisition Adjustment	(525,890)	0	(525,890)	
Excess Book Value	(1,026,646)	0	(1,026,646)	
Water Service Corporation	158,647	0	158,647	
C.W.I.P	196,236	(182,910)	13,326	14
Pro Forma Plant	372,950	(288,950)	84,000	13
TOTAL RATE BASE	\$12,580,696	(\$858,267)	\$11,722,429	

Schedule MAB-3

**Carolina Water Service, Inc.
Rate of Return
Test Year Ended December 31, 2000**

	Percent To Total (1)	Cost Rate (2)	Weighted Cost (3)
<u>Company</u>			
Total Debt	50.09%	8.62%	4.32%
Common Equity	<u>49.91%</u>	12.35%	<u>6.16%</u>
Total	<u>100.00%</u>		<u>10.48%</u>
<u>C.A.</u>			
Total Debt	50.09%	8.62%	4.32%
Common Equity	<u>49.91%</u>	10.50%	<u>5.24%</u>
Total	<u>100.00%</u>		<u>9.56%</u>

Source: Dr. John Legler

Schedule MAB-4

Carolina Water Service, Inc.
Utility Operating Income Before Income Taxes
Test Year Ended December 31, 2000

	Company (1)	Adj. (2)	C.A. (3)	Schedule MAB-
U.O.I. Before Income Taxes	<u>\$923,470</u>	<u>\$0</u>	<u>\$923,470</u>	
Adjustments:				
Customer Growth		39,839		5
Rate Case Expense		38,733		6
Depreciation Expense		4,334		7
Utility/Commission Tax		2,850		8
Deferred Expenses		76,706		9
Materials & Supplies-T&D		64,519		10
Total Adjustments	<u>0</u>	<u>226,981</u>	<u>226,981</u>	
Adj UOI Bef Income Taxes	<u>\$923,470</u>	<u>\$226,981</u>	<u>\$1,150,451</u>	

Schedule MAB-5

Carolina Water Service, Inc.
Customer Growth Adjustment
Test Year Ended December 31, 2000

	<u>Adjustment</u>
<u>Water</u>	
Customers @12/31/99	6,061
Customers @12/31/00	6,190
Increase	<u>129</u>
Average Increase	<u>64.5</u>
Pro Forma Revenue @ Present Rates	<u>\$ 1,541,564</u>
Revenues per Customer	<u>\$ 249.04</u>
Adjustment	<u>\$ 16,063</u>
 <u>Sewer</u>	
Customers @12/31/99	10,950
Customers @12/31/00	11,114
Increase	<u>164</u>
Average Increase	<u>82</u>
Pro Forma Revenue @ Present Rates	<u>\$ 3,270,827</u>
Revenues per Customer	<u>\$ 294.30</u>
Adjustment	<u>\$ 24,133</u>
 Total Revenue Adjustment	 \$ 40,196
 Uncollectibles @.005864	 (236)
 Gross Receipts Tax @0.3%	 <u>(121)</u>
 Net Adjustment	 <u>\$ 39,839</u>
 U.O.I. Before Income Taxes	 <u>\$ 39,839</u>

SOURCE: Staff 1-6

Schedule MAB-6

Carolina Water Service, Inc.
Rate Case Expense
Test Year Ended December 31, 2000

	Company (1)	Adj. (2)	C.A. (3)
Legal Fees	\$100,000		
Travel	2,600		
Water Service Personnel	65,600		
Subtotal	168,200	(\$68,200)	\$100,000
Cost of Capital	20,000	-	20,000
Expense to Be Amortized	\$188,200	(\$68,200)	\$120,000
Amortization Period (Years)	3	2	5
Amortization Expense	\$62,733	(\$38,733)	\$24,000

Source: C.A. 1-20

Schedule MAB-7

**Carolina Water Service, Inc.
Depreciation Expense
Test Year Ended December 31, 2000**

	Company	Adj.	C.A.
	(1)	(2)	(3)
Gross Plant	\$31,616,926	\$0	\$31,616,926
Add: Pro Forma Plant	372,950	(288,950)	84,000
Less: Land	(289,337)	0	(289,337)
Vehicles	(303,210)	0	(303,210)
PAA	(820,163)	0	(820,163)
AIA	(1,000)	0	(1,000)
Net Plant	<u>\$30,576,166</u>	<u>(\$288,950)</u>	<u>\$30,287,216</u>
Plant Depreciation @1.50%	<u>\$458,642</u>	<u>(\$4,334)</u>	<u>\$454,308</u>
Vehicles	<u>\$303,210</u>	<u>\$0</u>	<u>\$303,210</u>
Vehicle Depreciation @ 25.00%	<u>\$75,803</u>	<u>\$0</u>	<u>\$75,803</u>
Total Depreciation	<u>\$534,445</u>	<u>(\$4,334)</u>	<u>\$530,111</u>

Source: C.A. 1-23

Schedule MAB-8

Carolina Water Service, Inc.
Utility/Commission Tax
Test Year Ended December 31, 2000

	Company (1)	Adj. (2)	C.A. (3)
Utility/Commission Tax	\$56,998	\$0	\$56,998
Estimated Increase @5%	\$2,850	(\$2,850)	\$0

Source: C.A. 1-24

Schedule MAB-9

Carolina Water Service, Inc.
Deferred Expenses
Test Year Ended December 31, 2000

	Company (1)	Adj. (2)	C.A. (3)	Date
<u>Deferred Rate Case Expense</u>				
Defd Rate Case Exp Amort	\$1,596	(\$1,596)	\$0	1/1/98
Defd Rate Case Exp Amort	1,188	(1,188)	0	1/1/98
Defd Rate Case Exp Amort	58,806	(58,806)	0	1/1/98
Subtotal	61,590	(61,590)	0	
<u>Deferred Maintenance Expense</u>				
Tank Maint (Wtr)	502	(502)	0	11/1/99
Tank Maint (Wtr)	3,314	(3,314)	0	1/1/96
Attorney Fee-Lake Murray Bulk Wtr	420	(420)	0	9/1/97
Taxes SE2	6,164	(6,164)	0	8/1/90
I&I Study	1,740	(1,740)	0	6/3/99
PR Wash/Jet SWR Mains	2,292	(2,292)	0	1/1/97
TV SWR Mains	444	(444)	0	3/1/97
Tank Maint (SWR)	240	(240)	0	4/1/98
Subtotal	15,116	(15,116)	0	
Total Deferred Expenses	\$76,706	(\$76,706)	\$0	

Source: C.A. 1-40

Schedule MAB-10

**Carolina Water Service, Inc.
Account No. 720.6: Materials & Supplies-T&D (Sewer)
Test Year Ended December 31, 2000**

	Company	Adj.	C.A.
	(1)	(2)	(3)
Test Year Expense	\$767,762		
3- Year Average		(\$64,519)	\$703,243
1998 \$	611,328		
1999 \$	730,640		
2000 \$	767,762		

Source: Annual Reports to the S.C.P.S.C.

Schedule MAB-11

Carolina Water Service, Inc.
Income Taxes
Test Year Ended December 31, 2000

	Company (1)	Adj. (2)	C.A. (3)	Schedule MAB-
U.O.I. Before Income Taxes	\$923,470	\$226,981	\$1,150,451	4
Less: Interest	541,086	(34,940)	506,146	12
SC Taxable Income	<u>382,384</u>	<u>261,921</u>	<u>644,305</u>	
State Income Tax @5.0%	<u>19,119</u>	<u>13,096</u>	<u>32,215</u>	
Federal Taxable Income	<u>363,265</u>	<u>248,825</u>	<u>612,090</u>	
Federal Income Tax @34%	<u>123,510</u>	<u>84,601</u>	<u>208,111</u>	
Total Income Taxes	<u>142,629</u>	<u>97,697</u>	<u>240,326</u>	
Subtotal	780,841	129,284	910,125	
Amortization of I.T.C.	<u>8,852</u>	<u>0</u>	<u>8,852</u>	
Net Utility Operating Income	<u>\$789,693</u>	<u>\$129,284</u>	<u>\$918,977</u>	

Schedule MAB-12

**Carolina Water Service, Inc.
Interest Expense
Test Year Ended December 31, 2000**

	Company (1)	Adj. (2)	C.A. (3)	Schedule MAB-
Rate Base	\$12,580,696	(\$858,267)	\$11,722,429	2
Debt Ratio			50.09%	3
Embedded Cost of Debt			8.62%	
Pro Forma Interest	<u>\$541,086</u>	<u>(\$34,940)</u>	<u>\$506,146</u>	

Source: C.A. 1-27

Note: Company used incorrect debt ratio of 49.91% on C.A. 1-27.

Schedule MAB-13

Carolina Water Service, Inc.
Pro Forma Plant
Test Year Ended December 31, 2000

	<u>Water</u>	<u>Sewer</u>	<u>Adj.</u>	<u>C.A.</u>	<u>Complete</u>
	(1)	(2)	(3)	(4)	Date
Upgrade L/S #3		\$ 15,950	\$ (15,950)	\$0	
I&I Reduction		35,000	(35,000)	0	
Truck Replacement	\$ 24,000	24,000	0	48,000	6/18/01
Emergency gen & quick conn.	66,000	66,000	(132,000)	0	
Main Replacement	22,000		(22,000)	0	
Upgrade electric panel		6,000	(6,000)	0	
Construct office/lab	3,000	3,000	(6,000)	0	
Install diffused aeration		9,000	0	9,000	5/31/01
Upgrade telemetry	15,000		(15,000)	0	
Replace lap welded tank	15,000		(15,000)	0	
Replace lap welded tank	15,000		(15,000)	0	
Relocate outfall line		27,000	0	27,000	7/30/01
Install Filters at well #3	22,000		(22,000)	0	
Subtotal	182,000	185,950	(283,950)	84,000	
Balancing Entry	5,000	0	(5,000)	0	
Total	\$187,000	\$185,950	(\$288,950)	\$84,000	

Source: C.A. 1-32

Note 1: Company is claiming \$187,000 for Water; actual total is \$182,000, as shown above.

Note 2: Company is claiming \$13,326 for Upgrade L/S #3 in both C.W.I.P. and Pro Forma Plant- a double count.

Schedule MAB-14

**Carolina Water Service, Inc.
C.W.I.P.
Test Year Ended December 31, 2000**

	Company	Adj.	C.A.	Complete
	(1)	(2)	(3)	Date
				(4)
Interconnect Eng.	\$32,222	(\$32,222)	\$0	12/31/01
Interconnect Eng.	92,617	(92,617)	0	12/31/01
Upgrade L/S #3	13,326	0	13,326	5/31/01
Interconnect Eng.	51,859	(51,859)	0	10/31/01
Upgrade WWTP	6,212	(6,212)	0	12/31/01
Total	\$196,236	(\$182,910)	\$13,326	

Source: C.A. 1-32

Schedule MAB-15

**Carolina Water Service, Inc.
Net Plant In Service
Test Year Ended December 31, 2000**

	Company (1)	Adj. (2)	C.A. (3)
I-20 & Watergate wells	\$171,333	(\$171,333)	\$0
River Hills wells	116,786	(116,786)	0
Total	<u>\$288,119</u>	<u>(\$288,119)</u>	<u>\$0</u>

Source: Applicant's Second Supplemental Responses to C.A. Interrogatories II

Schedule MAB-16

Carolina Water Service, Inc.
Cash Working Capital
Test Year Ended December 31, 2000

	Company (1)	Adj. (2)	C.A. (3)	Schedule MAB-
O&M Expenses	\$3,046,830	\$0	\$3,046,830	
Adjustments:				
Rate Case Expense		(38,733)	(38,733)	6
Deferred Expenses		(76,706)	(76,706)	9
Materials & Supplies-T&D		(64,519)	(64,519)	10
O&M Adjustments		(\$179,958)	(\$179,958)	
Net O&M	3,046,830	(179,958)	2,866,872	
Taxes Other Than Inc Taxes	606,349	(606,349)	-	
Total	3,653,179	(786,307)	2,866,872	
Percentage	12.50%	0.00%	12.50%	
Cash Working Capital	\$456,647	(\$98,288)	\$358,359	

Source: C.A. 1-31